

ABSTRACT OF THE DISCLOSURES

Disclosed is a method of inhibiting neoplastic cellular proliferation and/or transformation of mammalian breast or ovarian cells, including cells of human origin, in vitro or in vivo. The inventive method involves the use of a pituitary tumor transforming gene carboxy-terminal peptide (PTTG-C), which has the ability to regulate endogenous pituitary tumor transforming gene (*PTTG*) expression and/or function in a dominant negative manner. In some embodiments, the invention is directed to gene-based treatments that deliver PTTG-C-related polynucleotides to mammalian cells, whether in vitro or in vivo, to inhibit the endogenous expression of *PTTG*. Other embodiments are directed to peptide-based treatments that deliver PTTG-C peptide molecules to the cells, which inhibit endogenous *PTTG* expression and/or PTTG function. The method can also enhance the effectiveness of cytotoxic chemotherapeutic agents conventionally used to treat breast or ovarian cancers, thus allowing lower effective doses of the agents to be administered.

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